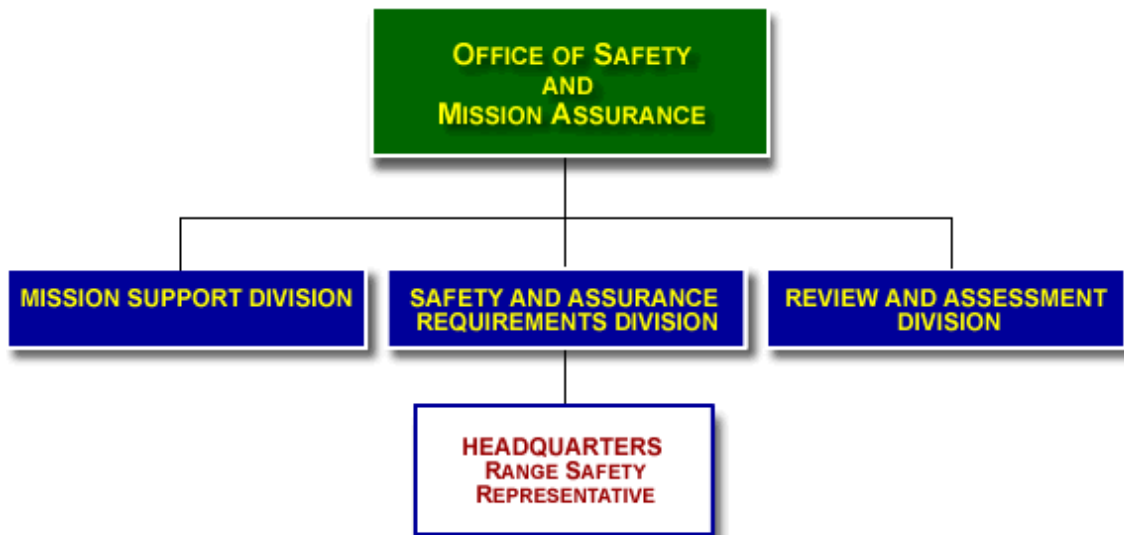


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The Office of Safety and Mission Assurance at NASA Headquarters works to ensure the safety and success of all NASA activities by developing and overseeing the implementation of Agency-level policies and requirements related to safety, reliability, maintainability, and quality assurance. The NASA Range Safety Program functions as an element of the Office of Safety and Mission Assurance. The Office also approves and promulgates Agency-level range safety policies and requirements, designates the NASA Range Safety Manager, and funds and oversees Range Safety Program activities.

The Headquarters Range Safety Representative is part of the Safety and Assurance Requirements Division of the Office of Safety and Mission Assurance.



The Headquarters Range Safety Representative and other members of the Office worked regularly with Agency range safety personnel and participated in a number of range safety related projects and initiatives throughout 2006. Articles addressing a number of the topics discussed below can be found in this *NASA Range Safety Annual Report*.

Expendable Launch Vehicle Payload Safety

The Office of Safety and Mission Assurance has established a team of personnel with expendable launch vehicle payload safety expertise from throughout the Agency in an effort to develop a new NASA Expendable Launch Vehicle Payload Safety Program. A major accomplishment for this team in 2006 was the finalization of new NASA payload safety policy which was published in Chapter 3 of NPR 8715.3, *General Safety Program Requirements*, dated September 2006. This document includes Agency safety policy applicable to all types of payloads. It establishes the NASA Expendable Launch Vehicle Payload Safety Program and it assigns associated roles and responsibilities. The team also made progress in developing a revised safety review and approval process

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applicable to all NASA expendable launch vehicle payload projects and associated technical requirements.

Range Commanders Council

The Headquarters Range Safety Representative actively participated in semiannual Range Commanders Council Range Safety Group meetings in 2006 and regularly worked as a member of the Range Safety Group Risk Committee to develop new Range Commanders Council Range Safety Risk Standards, scheduled to be published in 2007.

Space Shuttle and Constellation Range Safety Panels

Office of Safety and Mission Assurance representatives participated in the activities of the Space Shuttle Range Safety Panel and the new Constellation Range Safety Panel.

Training Development

The Headquarters Range Safety Representative worked with Agency range safety personnel in the development of the new NASA Range Safety Systems Training Course, which was completed and first offered in 2006.

Audits and Assessments

The Office of Safety and Mission Assurance conducted a programmatic audit of NASA's Orbital Sciences Corporation launch services contract for the Pegasus and Taurus launch vehicles. This audit took place over a 4-week period during April and May of 2006 and included site visits to Orbital Sciences facilities in Virginia, Arizona, and California. The audit included an assessment of Orbital Sciences' implementation of range safety requirements and a review of the flow down of NASA safety policies and requirements into the associated contracts and operational documents.

Office of Safety and Mission Assurance representatives participated in a special review of the Ultra-Long Duration Balloon Project, which is run out of the Goddard Space Flight Center – Wallops Flight Facility. The special review included an assessment of the Project's efforts to satisfy NASA range safety policy and requirements for the testing and operation of this new type of high-altitude balloon.

Research and Technology Development

The Office of Safety and Mission Assurance funds and oversees safety related research and technology development projects throughout the Agency. Range safety projects for

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2006 included the Global Positioning System Operational Information Laboratory at Wallops Flight Facility, the Joint Advanced Range Safety System Project at Dryden Flight Research Center, and the Autonomous Flight Safety System Project at Kennedy Space Center and Wallops Flight Facility.